



United States
Department of
Agriculture

Forest
Service

Southwestern Region
Forest Health
Arizona Zone Office

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Area Director
USDI-Bureau of Indian Affairs
Phoenix Area Office
P.O. Box 10
Phoenix, AZ 85001

Dear Area Director:

This letter serves as a biological evaluation for the FY 2006 Malay Gap Dwarf Mistletoe Suppression Project proposed by Victoria Wesley, Supervisory Forester, San Carlos Forest Resource Program, San Carlos Apache Reservation. Mary Lou Fairweather, Plant Pathologist with this office, recently visited the proposed project area with Victoria.

There are 9 stands totaling 455 acres proposed for treatment. Elevation ranges from 7500 to 7900 feet and stand aspect is variable. All stands are dominated by ponderosa pine, with groups or clumps of various age groups spread throughout the sites (Figure 1), and are intermixed with gambel oak. Depending on the site, other tree species include southwestern white pine, juniper, and Douglas-fir. A summary of stand exam survey data is presented in Table 1. This data was collected before the recent commercial timber harvest that occurred in sites 52, 54, and 56. Volumes in square feet of basal area per acre (BA) range from 60 to 185. Trees per acre (TPA) greater than 1 inch in diameter at breast height (DBH) range from 129 to over 1200. In addition, there are 100 to over 800 TPA less than 1 inch DBH. Average stand dwarf mistletoe ratings (DMR) are light to high, ranging from 0.2 to 1.3.



Figure 1. Groups of mature, pole and sapling sized trees are dispersed throughout a stand in Malay Gap.



The treatment objective is to promote the growth and development of stands into forests of lightly infected sawtimber-size trees. The proposed treatment is to remove all visibly dwarf mistletoe infected trees less than 7"DBH, and follow with prescribed burns. In order to reduce fire hazard and protect the residual stand, slash material will be lopped and scattered, or piled by hand or machine and burned.

Dwarf mistletoe infection will be visible following treatment, especially in the more heavily infected stands. However, the reduced infection levels and decreased densities should lessen the impact of disease on residual trees. Latent infections are expected to be visible in about 5 years and will be managed in subsequent cutting cycles.

Table 1. Stand exam data summary table for sites proposed for dwarf mistletoe suppression treatment.				
Stand Number	Acres	BA	Trees per acre > 1 inch DBH	DMR
44	51	60	129	0.8
45	74	70	344	1.2
51	23	111	260	0.2
52	28	95	1200	0.1
53	54	94	308	0.5
54	33	185	1244	1.3
55	39	82	506	0.2
56	57	80	600	0.6
57	95	65	500	0.3

After field checking present stand conditions and reviewing the proposed silvicultural prescription, we believe the management schemes presented here are biologically sound methods of controlling dwarf mistletoe infection. Based on stocking levels, infection levels, and stand composition, sanitation treatments appear to be an effective means of obtaining healthy trees on these sites.

If you have any questions regarding this evaluation, please call Mary Lou Fairweather at (928) 556-2075.

Sincerely,

/s/ John Anhold
JOHN ANHOLD
Arizona Zone Leader Forest Health

cc:
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